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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,246	11/26/2003	Jae Hoon Ha	K-0573	6118
34610	7590	01/04/2007	EXAMINER	
FLESHNER & KIM, LLP			STINSON, FRANKIE L	
P.O. BOX 221200			ART UNIT	PAPER NUMBER
CHANTILLY, VA 20153			1746	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	01/04/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/721,246	HA; JAE HOON	
	Examiner	Art Unit	
	FRANKIE L. STINSON	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 November 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-38 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____

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1. In view of Applicant's remarks filed November 15, 2006, the restriction dated October 19, 2006 is hereby withdrawn

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9-15, 18-34, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Germany'053 (Germany 36 44 053) or Germany'673 (Germany 36 04 673) in view of Lowe (U. S. Pat. Pub. App. No. 2004/026552) or Bereznai (U. S. Pat. No. 6,240,954).

Re claims 1 and 20, Germany'053 and Germany'673 disclose the housing, tub, injector and the selectively opened inlet /first valve that differs from the claims only in the recitation of the second valve as claimed. Lowe (as at 17) and Bereznai (as at 2) are each disclosing the second valve as claimed. It therefore would have been obvious to one having ordinary skill in the art to modify the detector in either Germany'053 or Germany'673, to include a second valve as taught by either Lowe or Bereznai, for the purpose of positively preventing the overflow of water. Also note the float in Lowe and Bereznai. Lowe also discloses the rod, extension member, arm, the step (as at 45) arrangement for locating the rod at different positions.

4. Claims 8, 16-18, 35 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over the applied prior as applied to claims 1 and 20 above, and further in view of French (U. S. pat. No. 4,025,237).

Claims 8, 16-18, 35 and 36 define over the applied prior art only in the recitation of the magnet. French discloses the magnet (6, 4) as claimed. It therefore would have been obvious to one having ordinary skill in the art to modify the arrangement of the applied prior , to include a magnet as taught by French, since this is considered to be a mere substitution of equivalents (see MPEP 2144.06 SUBSTITUTING EQUIVALENTS KNOWN FOR THE SAME PURPOSE).

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In Totten et al., Thordarson, Walters, Nixon et al., EPO'831, and Ponsar, note the detectors.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (571) 272-1308. The examiner can normally be reached on M-F from 5:30 am to 2:00 pm and some Saturdays from approximately 5:30 am to 11:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached on (571) 272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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If you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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FRANKIE L. STINSON
Primary Examiner
GROUP ART UNIT 1746